REMARKS

Applicants appreciate the thorough examination of the present application that is evidenced in the Office Action of June 24, 2004. As discussed in detail below, Applicants have amended the specification and drawings to address the various informalities identified in the examiner's thorough review. In addition, Applicants have amended Claims 4, 12, 14, 15 and 18 to address the rejections under 35 U.S.C. § 112. Applicants have carefully reviewed the pending rejections under 35 U.S.C. § 103, but have not amended the claims in response thereto as Applicants believe that the combination of cited references do not disclose or suggest all of the recitations of the pending claims, nor do Applicants believe that a person of skill in the art would have been motivated to combine the references in the manner stated in the rejections. Accordingly, Applicants respectfully submit, for the reasons explained below, that the pending claims are now all in condition for allowance, which is respectfully requested. Applicants have also added one new claim to the application.

I.   The Objections to the Specification and Drawings

The drawings and the specification have been objected to because reference character **60** has been used to designate both the TN3270E Client and the TN3270 Server. Applicants have enclosed a Replacement Sheet for Figure 3 that relabels the TN3270E server with reference character **62** (consistent with Figure 2). The first full paragraph of page 10 of the specification has been amended to likewise relabel the TN3270E server with reference character **62**.

II.   The Objection to Claim 8

Claim 8 has been objected to as being in improper dependent form for failing to further limit the subject matter of the claim from which it depends. Applicants respectfully traverse this objection. An IP connection refers to a connection at a specific layer of a network architecture. A TCP connection refers to a transport layer connection, which is another layer in the architecture that is below the IP connection. An IP connection can exist and work with a different transport layer connection than a TCP connection. As such, an IP connection represents a genus, and a TCP/IP connection is a specific type or "species" of IP connection.

In light of the above, Applicants submit that Claim 8 in fact narrows Claim 1 as it requires that the connection include both an IP connection and a TCP connection. Accordingly, Applicants respectfully submit that the objection to Claim 8 should be withdrawn.

III. The Claim Rejections Under 35 U.S.C. § 112

Claims 4, 15 and 18 stand rejected under 35 U.S.C. § 112 because each of these claims include a recitation that does not have proper antecedent basis. Applicants have amended Claims 4, 15 and 18 to correct these informalities. Applicants appreciate the examiners careful review of the present application and the identification of the informalities in the specification, drawings and claims.

Claims 9, 12, 13 and 14 stand rejected as indefinite under 35 U.S.C. § 112. As the examiner has correctly noted, Claim 14 should have recited "resuming communications over the second TCP/IP connection" instead of "transmitting a query." Claim 14 has been amended to correct this error noted by the examiner. Claim 12 has also been amended to make clear that the authentication step is only performed if the response to the query is not received within the specified time period.

IV. The Rejections Under 35 U.S.C. § 103

A. The Rejections of Independent Claims 1, 19 and 21

Claims 1, 19 and 21 stand rejected under 35 U.S.C. § 103 as obvious over IBM TDB-ACC-No. NN86034482 ("the IBM '842 reference") in view of U.S. Patent No. 5,802,278 to Isfeld et al. ("Isfeld"). In particular, the Office Action states that the IBM '842 reference discloses "reestablishing the connection between the TN3270 server and the TN3270 client and that Isfeld discloses forwarding "a request to [a] central processor to refresh the entry." (Office Action at 4-5). Applicants respectfully traverse these rejections.

As an initial matter, neither of the cited references disclose or suggest "forwarding a screen refresh request to the SNA application" as recited in Claims 1, 19 and 21. The Office Action cites to Isfeld as disclosing this recitation, but Isfeld does not include any such disclosure. The cited portion of Isfeld describes a Protocol Address Information Cache ("PAC") included in a bridge-router. (Isfeld at Col. 46, lines 16-24). The router includes a source address learning and refresh capability which is invoked when new source addresses

are encountered in received inbound packets that are routed by the router. (Isfeld at Col. 46, lines 59-67). The PAC maintains source addresses. (Isfeld at Col. 47, lines 1-2). The source addresses in the PAC can have one of three associated states: a fresh state, a stale state or a time out state. (Isfeld at Col. 47, lines 18-20). A "fresh" source address entry remains "fresh" so long as it is being used. (Isfeld at Col. 47, lines 20-22). However, if the source address is not used for a period of time (e.g., 5 seconds), its state is changed to "stale", but it remains in the PAC. (Isfeld at Col. 47, lines 22-24). If, while in the "stale" state, a source address remains unused for a second time period (e.g., 20 seconds), it changes to an "invalid" state. (Isfeld at Col. 47, lines 24-26).

The portion of Isfeld relied on in the Office Action as disclosing the "forwarding a screen refresh request to the SNA application" of Claims 1, 19 and 21 is the statement at Col. 47, lines 26-30 which explains that when the router relies on a "stale" source address entry in the PAC, a request is sent to the central processor to "refresh the entry." Once such a refresh is received, the entry is converted from a "stale" state to a "fresh" state. As should be clear from the above discussion, this has nothing to do with forwarding a **screen** refresh. The cited portion of Isfeld discloses a method for associating one of three states with entries that are maintained in a database, and the "refresh" referred to in Isfeld involves changing between two of these states. It does not involve forwarding a screen refresh request anywhere, nor does it involve an SNA application.

Moreover, the IBM '842 reference does not cure the deficiencies with Isfeld. In fact, the Office Action concedes that the IBM '842 reference "fails to teach forwarding a screen refresh request to the SNA application." (Office Action at 5). Additionally, while the IBM '842 reference is cited as disclosing "reestablishing the IP connection between the TN3270E server and the TN3270E client", in fact, the IBM '842 reference does not disclose anything about reestablishing an **IP layer** connection. Instead, the IBM '842 reference discusses an IBM PC network that are connected through "a logical connection" to another PC which acts as a "Gateway" through an SNA/SDLC link.

As should be clear from the above discussion, the cited references fail to disclose or suggest multiple of the recitations of Claims 1, 19 and 21. Accordingly, the rejections of those claims, as well as the rejections of Claims 2-8 which depend therefrom, should be withdrawn.

Applicants further submit that the rejections of Claims 1, 19 and 21 should be withdrawn because a person of ordinary skill in the art would not have been motivated to combine the IBM '842 reference with Isfeld. The IBM '842 reference describes a recovery method which may be used to recover from failures in a network session. Isfeld, on the other hand, is directed to a bridge router which is used to route packets through a network. (Isfeld at Col. 1, lines 13-30). The two references are completely unrelated, and there is no reason that a person of skill in the art would have looked to a table update scheme in a bridge router to modify the teachings of an automatic session recovery mechanism for a PC network. This provides an independent basis for the withdrawal of the rejections of Claims 1-9, 19 and 21.

B.   The Rejections of Independent Claims 9, 20 and 22

Claims 9, 20 and 22 stand rejected under 35 U.S.C. § 103 as obvious over U.S. Patent No. 6,088,738 to Okada ("Okada") in view of U.S. Patent No. 6,028,600 to Rosin et al. ("Rosin") and U.S. Patent No. 5,758,084 to Silverstein ("Silverstein"). Claim 9, which is representative of Claims 9, 20 and 22, recites as follows:

> 9. A method for reestablishing a TCP/IP connection between a TN3270E client and a TN3270E server after loss of a first TCP/IP connection between the TN3270E client and the TN3270E server in which the TN3270E client connected to the TN3270E server under a first Logical Unit ("LU") name, the method comprising:
>
> receiving a connection request, wherein the connection request specifies the first LU name;
>
> transmitting a query addressed to the TN3270E client over the first TCP/IP connection;
>
> establishing a second TCP/IP connection in response to the connection request if a response to the query is not received within a specified time period; and
>
> resuming communications over the second TCP/IP connection.

The Office Action cites to Col. 3, lines 1-3 of Okada as disclosing "receiving a connection request [that] specifies the first LU name." (Office Action at 13-14). The cited portion of Okada discloses the unremarkable principle that clients send a connection request with a logical unit name to connect to a host computer. The Office Action then cites to Rosin as disclosing "transmitting a query addressed to the TN3270E client over the first TCP/IP connection." (Office Action at 14). The cited portion of Rosin relates to a system for providing internet content and traditional television programming through a single coherent

interface. (Rosin at Col. 2, lines 44-49). The Office Action cites to the passage in the "Summary of the Invention" section of Rosin which states that "the server queries the client regarding its available data stream connections." As discussed in more detail in the Detailed Description section, the system of Rosin may have multiple transmission media available such as telephone modems, cable modems and digital satellite broadcasting. Thus, a query may be performed so that content is streamed through the most efficient of multiple connections. (*See* Rosin at Col. 12, lines 42-47).

If Okada is modified to include the teachings of Rosin, one would obtain a client-host computer network in which multiple different connection types were provided between the client and host (e.g., telephone modem, cable modem, etc.). The host would then query the client to determine which of the multiple connections were most efficient. In contrast, the first two clauses following the preamble of Claims 9, 20 and 22 relate to methods, systems and computer program products in which a connection request is received that contains the LU name of a client that already has an established TCP/IP connection. After receiving this request, a query is transmitted to the client associated with the LU name over the already established connection. Applicants respectfully submit that there are significant distinctions between the combination of Okada and Rosin as compared to the first two clauses after the preambles of Claims 9, 20 and 22. For instance, the combination of Okada and Rosin does not disclose or suggest (1) sending queries over a TCP/IP connection, (2) receiving a connection request specifying an LU name associated with an already existing connection, or (3) transmitting a query to an already existing client over an already existing connection in response to receipt of a request to establish a connection. Accordingly, the rejections of Claims 9, 20 and 22 should be withdrawn for at least these reasons.

As noted above, the Office Action cites to Silverstein as disclosing the last two clauses of Claims 9, 20 and 22. (Office Action at 14). However, Silverstein likewise fails to disclose what the Office Action states. In particular, Silverstein discloses that when a connection between a client and a server is not ready, the connection may be closed and a new connection established. (See Silverstein at Col. 10, lines 41-56). Silverstein, however, does not disclose establishing the second connection "if a response to the query is not received" as recited in the next-to-last clause of Claims 9, 20 and 22. This provides an independent basis for withdrawing the rejections of these claims.

Finally, Applicants again respectfully submit that a person of skill in the art would not have been motivated to combine the cited references to arrive at the inventions of Claims 9, 20 and 22. Instead, the Office Action simply uses the recitations of the claims as a roadmap to select unrelated portions of unrelated references. Such hindsight is impermissible in fashioning a rejection under Section 103. Accordingly, for all of the above reasons, the rejections of Claims 9, 20 and 22, and Claims 10-18 which depend therefrom, should also be withdrawn.

C.   The Rejections of Dependent Claims 2-8 and 10-18

Dependent Claims 2-9 and 10-18 stand rejected as obvious in light of the references used to reject the claims from which they depend and one or more additional secondary references. As discussed above, each of these rejections should be withdrawn for the reasons, discussed above, for which the rejections of Claims 1,9 and 19-22 should be withdrawn. Applicants further submit that the rejections of the dependent claims should also be withdrawn for the following independent reasons.

Claim 2 stands rejected under U.S.C. § 103 as obvious over the IBM '842 reference, Isfeld and U.S. Patent No. 6,014,702 to King et al. ("King"). King is cited as teaching both of the recitations added by Claim 2. The cited portion of King describes a web-emulation system for use with TN3270 clients. A screen graphical user interface applet is downloaded to the client, and then data (such as, for example, a log-on screen) can be transferred from the website to the TN3270 client. Applicants respectfully submit that King does not have anything to do with the "screen refresh" recitations set forth in Claim 2, and clearly does not disclose receiving a screen refresh from an SNA application or forwarding a screen refresh (as opposed to a screen) to a TN3270 client. Accordingly, the rejection of Claim 2, and the rejections of Claims 3-5 and 8 which depend therefrom, should be withdrawn for this additional reason.

Claim 10 stands rejected under U.S.C. § 103 as obvious over Okada, Rosin, Silverstein and U.S. Patent No. 6,707,567 to Suzuki ("Suzuki"). (Office Action at 15-16). Suzuki discloses a "supervising system" for an "image forming apparatus." (Suzuki at Title). The cited portion of Suzuki discloses that a client computer of the system may "automatically respond" to "handle a request for related materials." Applicants respectfully submit that Suzuki fails to disclose the recitation of Claim 10, which involves sending a query to a

TN3270E client terminal to which the client automatically responds. Suzuki does not disclose such a query and, even if it did, Applicants respectfully submit that there has been no showing that one of skill in the art would have looked to combine Suzuki with Okada, Rosin and Silverstein in the manner of the rejection. Instead, the rejection appears to reflect the use of hindsight based on the teachings of the present invention to pick and choose disparate disclosures from unrelated references in an effort to arrive at a combination that loosely resembles the invention of Claim 10. Applicants respectfully submit that such a methodology is not a permissible way of forming a combination of references to support an obviousness rejection.

Applicants also submit that various of the remaining dependent claims are independently patentable, both because the cited secondary references fail to disclose the recitations added by those claims and/or because one of skill in the art would not have been motivated to combine the references in the manner suggested in the rejections. However, in light of the above showing as to why all of the pending claims are patentable over the cited references, Applicants do not believe it is necessary to specifically point out these additional bases for allowance of the claims.
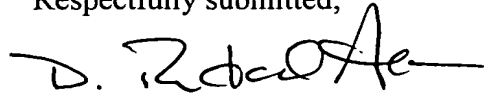
V.   Notice of References Cited (PTO-892)

The June 24, 2004 Office Action indicates that a Notice of References Cited, PTO Form 892, was mailed with the Office Action. While Applicants received copies of the cited art, Applicants did not receive a copy of the PTO Form 892. Applicants request that the examiner include a copy of the previous PTO Form 892 with the next Office Action so that Applicants file will be complete.

VI.   Conclusion

Applicants again wish to thank the Examiner for the thorough examination of the application. Applicants believe that, in light of the present amendments, the claims are all in condition for allowance, which is respectfully requested. Should the Examiner have any questions, please feel free to call Applicants representative at (919) 854-1422.

Respectfully submitted,

D. Randal Ayers
Registration No. 40,493
Attorney for Applicants

Customer Number 20792
Myers Bigel Sibley & Sajovec, P.A.
P.O. Box 37428
Raleigh, NC 27627
919-854-1400
919-854-1401 (Fax)